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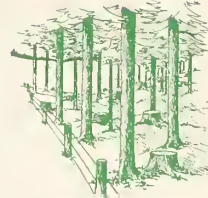


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# MANAGING YOUR WOODLAND

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HOW TO DO IT GUIDES



## PACIFIC NORTHWEST REGION—STATE AND PRIVATE FORESTRY PORTLAND, OREGON

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### WOODLAND      PROTECTION---GRAZING



In the Douglas-fir Region Healthy Trees and Livestock  
Are Best Produced on Separate Areas.

The woodland beyond the fence was once a stump pasture.  
When stock were excluded the area grew a good stand of trees.



FOR FURTHER INFORMATION CONSULT YOUR LOCAL FORESTER





## WOODLAND PROTECTION---GRAZING DAMAGE

The production of forest crops can seldom be combined economically with the production of livestock in areas west of the Cascade Range. This is particularly true of hardwood stands and relatively shallow-rooted conifers such as fir, hemlock, spruce and cedar. Trees east of the Cascades, such as ponderosa pine, lodgepole pine and larch are normally deep-rooted and are not seriously affected by grazing use except in the seedling stage. These trees grow with wider spacing and numerous natural openings. This condition encourages the growth of grass and palatable browse and lessens the chance that hungry livestock will damage the trees.

Damage to trees by livestock is caused by:

1. Chewing off new growth of leaders and side branches.
2. Scraping off the bark by rubbing against young trees.
3. Physical damage to shallow roots by trampling.
4. Breaking and killing seedlings by trampling.
5. Compaction of the soil resulting in reduction of its water holding and absorption qualities and reducing necessary aeration of the soil. This will cause reduced tree growth and it can cause the trees to die.

In Douglas-fir and associated species, the loss from grazing damage to a timber stand is usually far greater than the value of the feed obtained from the area, because there is very little forage in a well-stocked stand of forest trees.

Continued overgrazing will periodically kill off some of the trees and eventually cause the stand to become understocked. The surviving trees will be too widely spaced to utilize the area to full advantage. Unless pruned, they will retain their limbs and at harvest will yield fast-tapering, knotty logs of low value. Such a woodland will produce less timber volume and value for the owner than it should. It also will have produced very little forage value.

When a stand of timber is cut, the clearing is exposed to the sunlight so that a variety of plants commence to grow. Seeds from trees, brush, weeds and grasses germinate and start competing for growing space. If the first growing season happens to occur after a good tree seed year (about one year in five) the area may become well-stocked with trees. However, after poor seed years, grasses, weeds and shrubs get a head start and make it more difficult for tree seedlings to become established.

These forage plants attract deer and domestic stock to the area. If this grazing use becomes too heavy, the animals will nip the new growth and buds of coniferous trees causing slow growth, deformed trees and some mortality. Many young trees will also be killed by trampling of cattle and other stock, particularly during wet weather. The unpalatable brush, which is not damaged by the livestock, will continue to grow and eventually shade out most of the grass and young trees that may have started. Such vegetation often prevents new seeds from germinating. The area will then have little value either for grazing or for growing timber.





It is important to protect young trees from grazing damage until their terminal buds have grown too high for animals to reach. A forest plantation is especially in need of protection from grazing. Seedlings from a forest nursery seem to contain nutrients that attract browsing animals. Planted seedlings often suffer serious terminal bud damage from animals while adjacent natural seedlings are undamaged.

Grazing damage on open range areas can best be controlled by fencing domestic livestock out of the forest areas. In areas having a herd law, confining your own stock to pasture areas by fencing would accomplish the same objective. If trees are needed for shade or shelter, fencing should permit access only to the particular portion of the woodland set aside for that purpose.

Grazing damage by deer is usually not as severe as by domestic animals but is much more difficult to control. Fencing is expensive. Increased harvesting of deer by hunters should be encouraged instead of closing the area to hunting. In many areas, an either-sex deer season or a special late season is effective in bringing game population and available forage into a favorable balance. Where there are sufficient other kinds of palatable browse, deer damage to conifers is usually not a serious problem.

A forest landowner should compare the long range income from forest crops on his land to the short term value of the land for grazing. If grazing is more important to him than forestry, the area should be developed exclusively for grazing. It should be cleared, seeded to grasses or other forage, and managed for maximum livestock production. If the landowner decides that the greatest benefit to him would be timber production, grazing should be excluded and every effort made to obtain maximum timber production.

To realize the greatest return from his forest, the owner should keep it fully stocked with healthy, well-formed trees of species that are in good market demand. This objective can be aided by excluding domestic livestock from woodlands and cooperating with State Game Departments in their efforts to control excessive game populations through special hunting seasons and regulations.

---DUAL USE OF WESTSIDE FOREST LANDS  
FOR TIMBER AND GRAZING USUALLY  
RESULTS IN LOW VALUE FOREST AND  
UNDERFED LIVESTOCK---

